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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/965,079	09/27/2001	Samir S. Soliman	PA010506	3384

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Qualcomm Incorporated
Patents Department
5775 Morehouse Drive
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EXAMINER	
QUINONES, ISMAEL C	
ART UNIT	PAPER NUMBER
2686	

DATE MAILED: 06/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/965,079	SOLIMAN, SAMIR S.	
	Examiner	Art Unit	
	Ismael Quiñones	2686	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 September 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-23* is/are pending in the application.

4a) Of the above claim(s) *23* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *5*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement (IDS) submitted on March 10, 2003 has being considered by the examiner and made of record in the application file.

Election/Restrictions

2. Restriction to one of the following inventions is required under 35 U.S.C. 121:

I. **Claims 1-22**, drawn to a method and a communication system comprising multiple co-located cell site transceivers performing hard and soft handoff, classified in class 455, subclass 436.

II. **Claim 23**, drawn to an apparatus comprising basic cell site transceiver hardware features with multiple antennas, classified in class 455, subclass 562.1.

3. The inventions are distinct, each from the other because of the following reasons: **Inventions I and II** are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because **invention I** does not require a signal generator, a traffic channel modulator and a combiner as claimed in **invention II**. The

subcombination has separate utility such integrating subsystems within a coverage area such as sectors or layered structures.

4. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

5. A telephone call was made to Philip Wadsworth on May 26, 2004 to request an oral election to the above restriction requirement, resulting in the election with traverse of **Invention I** (claims 1 thru 22).

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. **Claims 18-20** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

8. **Claim 18** recites the limitation "said mobile station" in line 3 of claim 18. There is insufficient antecedent basis for this limitation in the claim.

9. **Claim 19** recites the limitation " said second cell site primary transceiver system " in line 12 of claim 9. There is insufficient antecedent basis for this limitation in the claim.

10. **Claim 20** recites the limitation "said first cell site secondary transceiver system" in lines 5-6 of claim 20. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

12. **Claims 1-16 and 19** are rejected under 35 U.S.C. 102(b) as being anticipated by Jolma (U.S Pat. No. 6,011,971).

Regarding **claim 1**, Jolma discloses a communication system (*Fig. 4*) comprising: a first cell site primary transceiver system for providing communication coverage in a first coverage area (*Fig. 4, BTS 11*); a second cell site primary transceiver system for providing communication coverage in a second coverage area (*Fig. 4, BTS 23*); a first cell site secondary transceiver system for providing communication coverage in said second coverage area (*Fig. 4, BTS 13*); and a second cell site secondary transceiver system for providing communication coverage in said first coverage area (*Fig. 4, BTS 21*), wherein communications in said first and second coverage area are over a common carrier frequency (*col. 1, lines 32-40; col. 4, lines 33-36*).

Regarding **claim 2**, and as applied to claim 1, Jolma discloses the aforementioned communication system further comprising: a first cell site antenna (*Fig. 3c, item 32*) system coupled to said first cell site primary transceiver system (*Fig. 4, BTS 11*) for providing communication coverage in said first coverage area (A base station comprising two logical sections, which are respectively under control of different base stations controllers; *col. 5, lines 7-16; Fig. 3c*); a second cell site (A plurality of cell sites

comprising dual base stations under the control of different base station controllers; *Fig. 4*) antenna system (*Fig. 3c, item 32*) coupled to said second cell site primary transceiver system (*Fig. 4, BTS 23*) for providing communication coverage in said second coverage area (*Fig. 3c, item 32*); and wherein said first cell site secondary transceiver system (*Fig. 4, BTS 13*) is coupled to said second cell site antenna system for providing communication coverage in said second coverage area (A base station comprising two logical sections, which are respectively under control of different base stations controllers; *col. 5, lines 7-16; Fig. 3c*); wherein said second cell site secondary transceiver system (*Fig. 4, BTS 21*) is coupled to said first cell site antenna system (*Fig. 3c, item 32*) for providing communication coverage in said first coverage area (A plurality of cell sites comprising dual base stations under the control of different base station controllers; *Fig. 4*).

Regarding **claim 3**, and as applied to claim 1, Jolma discloses the aforementioned communication system as recited, wherein said first cell site primary and said second cell site secondary transceiver systems are located within a first common area (Base stations *BTS 11* and *BTS 21* co-located within the same *cell 41*; *Fig. 4*).

Regarding **claim 4**, and as applied to claim 1, Jolma discloses the aforementioned communication system, wherein said second cell site primary and first cell site secondary transceiver systems are located within a second common area (Base stations *BTS 23* and *BTS 13* co-located within the same cell area as shown on *Fig. 4*).

Regarding **claim 5**, and as applied to claim 1, Jolma discloses the aforementioned communication system further comprising: a mobile station (a terminal equipment *MS*;

Fig. 4; col. 5, line 33) configured for performing a hard handoff between said first cell site primary transceiver system and said second cell site secondary transceiver system (A hard handover carried out by the terminal equipment *MS* from base station *BTS 11* to the base station *BTS 21; col. 5, lines 45-53*) followed by a soft handoff with said second cell site primary transceiver system and said second cell site secondary transceiver system while moving from said first cell site to said second cell site (As the terminal moves deeper into another cell it can carry a soft handover to a base station *BTS 22* located within the cell which is under the controlled of a base station controller *BSC2*, correspondently controlling the base station *BTS 21* located on the previous cell; *col. 5, line 66 thru col. 6, line 2; Fig. 4*).

Regarding **claim 6**, and as applied to claim 1, Jolma discloses the aforementioned communication system further comprising: a first cell site base station controller coupled to said first cell site primary and secondary base transceiver systems (Wherein the first cell site primary transceiver *BTS 11* and first cell site secondary transceiver *BTS 13* are computed to a First Base Station Controller *BSC1* as shown in *Fig. 4*; *col. 5, lines 20-22*); a first cell site mobile station controller coupled to said first cell site base station controller (Wherein the Base Station Controllers are typically coupled to mobile station controllers or "Mobile Switching Centers"; *col. 3, line 63-65; Fig. 1*).

Regarding **claim 7**, and as applied to claim 1, Jolma discloses the aforementioned communication system further comprising: a second cell site base station controller coupled to said second cell site primary and secondary base transceiver systems (Wherein the second cell site primary transceiver *BTS 23* and second cell site secondary transceiver

BTS 21 are computed to a Second Base Station Controller *BSC2* as shown in *Fig. 4*; *col. 5, lines 22-24*); and a second cell site mobile station controller coupled to said second cell site base station controller (Wherein the Base Station Controllers are typically coupled to mobile station controllers or "Mobile Switching Centers"; *col. 3, line 63-65; Fig. 1*).

Regarding **claim 8**, and as applied to claim 1, Jolma discloses the aforementioned communication system further comprising: a land based network coupled to said first and second cell sites for providing land based communications to said first and second cell sites (Wherein the base station controllers are typically coupled to mobile switching centers, from which calls are routed to a fixed network or land based network; *col. 3, lines 63-66*).

Regarding **claim 9**, Jolma discloses a method comprising: installing a first cell site primary transceiver system for providing communication coverage in a first coverage area (*Fig. 4, BTS 11*); installing a second cell site primary transceiver system for providing communication coverage in a second coverage area (*Fig. 4, BTS 23*); coupling a first cell site secondary transceiver system (*Fig. 4, BTS 13*) to an antenna system of said second cell primary transceiver system (Both second cell site primary transceiver system and first cell site secondary transceiver system coupled to the same antenna as shown in *Fig. 3c, item 32*, which disclose the embodiment of overlapping or collocated cells employing the same antenna; *col. 5, lines 7-16*) for providing communication coverage in said second coverage area; and coupling a second cell site secondary transceiver system (*Fig. 4, BTS 21*) to an antenna system of said first cell primary transceiver system (Both first cell site primary transceiver system and second cell site secondary transceiver

system coupled to the same antenna as shown in *Fig. 3c, item 32*, which disclose the embodiment of overlapping or collocated cells employing the same antenna; *col. 5, lines 7-16*) for providing communication coverage in said first coverage area.

Regarding **claim 10**, and as applied to claim 9, Jolma discloses the aforementioned method further comprising: operating a communication system including said first and second cell sites over a common carrier frequency assignment (*col. 1, lines 32-40; col. 4, lines 33-36*).

Regarding **claim 11**, and as applied to claim 9, Jolma discloses the aforementioned method further comprising: locating said first cell site primary and said second cell site secondary transceiver systems within a first common area (Base stations *BTS 11* and *BTS 21* co-located within the same *cell 41*; *Fig. 4*).

Regarding **claim 12**, and as applied to claim 9, Jolma discloses the aforementioned method further comprising: locating said second cell site primary and said first cell site secondary transceiver systems within a second common area (Base stations *BTS 23* and *BTS 13* co-located within the same cell area as shown on *Fig. 4*).

Regarding **claim 13**, and as applied to claim 9, Jolma discloses the aforementioned method further comprising: coupling a first cell site base station controller to said first cell site primary and secondary transceiver systems (Wherein the first cell site primary transceiver *BTS 11* and first cell site secondary transceiver *BTS 13* are computed to a First Base Station Controller *BSC1* as shown in *Fig. 4*; *col. 5, lines 20-22*); and coupling a first cell site mobile station controller to said first cell site base

station controller (Wherein the Base Station Controllers are typically coupled to mobile station controllers or "Mobile Switching Centers"; *col. 3, line 63-65; Fig. 1*).

Regarding **claim 14**, and as applied to claim 9, Jolma discloses the aforementioned method further comprising: coupling a second cell site base station controller to said second cell site primary and secondary transceiver systems (Wherein the second cell site primary transceiver *BTS 23* and second cell site secondary transceiver *BTS 21* are computed to a Second Base Station Controller *BSC2* as shown in *Fig. 4*; *col. 5, lines 22-24*); and coupling a second cell site mobile station controller to said second cell site base station controller (Wherein the Base Station Controllers are typically coupled to mobile station controllers or "Mobile Switching Centers"; *col. 3, line 63-65; Fig. 1*).

Regarding **claim 15**, and as applied to claim 9, Jolma discloses the aforementioned method further comprising: coupling a land based network to said first and second cell sites for providing land based communications to said first and second cell sites (Wherein the base station controllers are typically coupled to mobile switching centers, from which calls are routed to a fixed network or land based network; *col. 3, lines 63-66*).

Regarding **claim 16**, and as applied to claim 9, Jolma discloses the aforementioned method further comprising: performing a hard handoff, for a mobile station (a terminal equipment *MS*; *Fig. 4; col. 5, line 33*), between said first cell site primary transceiver system and said second cell site secondary transceiver system (A hard handover carried out by the terminal equipment *MS* from base station *BTS 11* to the

base station *BTS 21; col. 5, lines 45-53*); and performing a soft handoff, followed after said hard handoff, with said second cell site secondary transceiver system and said second cell site primary transceiver system (As the terminal moves deeper into another cell it can carry a soft handover to a base station *BTS 22* located within the cell which is under the controlled of a base station controller *BSC2*, correspondently controlling the base station *BTS 21* located on the previous cell; *col. 5, line 66 thru col. 6, line 2; Fig. 4*).

Regarding **claim 19**, Jolma discloses a method for providing uninterrupted communication services to a mobile station (a terminal equipment *MS*; *Fig. 4; col. 5, line 33*) comprising: performing a hard handoff for said mobile station from a first cell site primary transceiver system to a second cell site secondary transceiver system (A hard handover carried out by the terminal equipment *MS* from base station *BTS 11* to the base station *BTS 21; col. 5, lines 45-53*), wherein said first cell site primary transceiver and said second cell site secondary transceiver independently provide for communication coverage in a first coverage area (Base stations *BTS 11* and *BTS 21* co-located within the same *cell 41*; *Fig. 4*), and wherein said second cell site secondary transceiver is coupled to an antenna system of said first cell primary transceiver system (Both second cell site primary transceiver system and first cell site secondary transceiver system coupled to the same antenna as shown in *Fig. 3c, item 32*, which disclose the embodiment of overlapping or collocated cells employing the same antenna; *col. 5, lines 7-16*); and performing a soft handoff, following said hard handoff, for said mobile station with said second cell site secondary transceiver system and a second cell site primary transceiver system (As the terminal moves deeper into another cell it can carry a soft handover to a

base station *BTS 22* located within the cell which is under the controlled of a base station controller *BSC2*, correspondently controlling the base station *BTS 21* located on the previous cell; *col. 5, line 66 thru col. 6, line 2; Fig. 4*), wherein said second cell primary transceiver system provides for communication coverage in a second coverage area (*Fig. 4, item BTS 23*), thus allowing said mobile station to have uninterrupted communication services while moving from said first communication coverage area to said second communication coverage area (A soft handover carry out by the mobile terminal while moving from different communication coverage areas; *col. 5, line 33 thru col. 6, line 2; Fig. 4*).

Claim Rejections - 35 USC § 103

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

14. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

15. **Claims 17-18, and 20-22** are rejected under 35 U.S.C. 103(a) as being unpatentable over Jolma (U.S Pat. No. 6,011,971) in view of Padovani (U.S Pat. No. 5,937,019).

Regarding **claim 17**, Jolma discloses a processor for use in a communication receiver (*MS, BS1, BS2, BSC1, BSC2, MSC*) comprising: a controller system (*Fig. 1 and Fig. 4*), further comprising a first cell site primary transceiver system for providing communication coverage in a first coverage area (*Fig. 4, BTS 11*); a second cell site primary transceiver system for providing communication coverage in a second coverage area (*Fig. 4, BTS 23*); a first cell site secondary transceiver system for providing communication coverage in said second coverage area (*Fig. 4, BTS 13*); and a second cell site secondary transceiver system for providing communication coverage in said first coverage area (*Fig. 4, BTS 21*), wherein communications in said first and second coverage area are over a common carrier frequency (*col. 1, lines 32-40; col. 4, lines 33-36*). Jolma fails to clearly specify acquiring PN offset of a primary pilot signal transmitted from a first cell site primary transceiver system in a first coverage area of said first cell site, acquiring PN offset of a secondary pilot signal transmitted in a second coverage area of a second cell site from a secondary transceiver system of said first cell site, acquiring PN offset of a primary pilot signal transmitted from a primary transceiver system of said second cell site in said second coverage area; and acquiring PN offset of a secondary pilot signal transmitted from said second cell site secondary transceiver system transmitting in said first coverage area, wherein said first and second cells primary and secondary pilot signals use different PN offsets.

In the same field of endeavor, Padovani discloses acquiring PN offset of a primary pilot signal transmitted from a first cell site primary transceiver system (*col. 6, lines 32-42; col. 12, lines 9-31; Fig. 4, item 132E*) in a first coverage area of said first cell site (*Fig. 4, item 126*), acquiring PN offset of a secondary pilot signal transmitted in a second coverage area of a second cell site (*Fig. 4, item 128*) from a secondary transceiver system of said first cell site (*Fig. 4, items 120 and 140*; *col. 6, lines 32-42; col. 12, lines 9-31; Fig. 4, item 122D*),acquiring PN offset of a primary pilot signal transmitted from a primary transceiver system of said second cell site (*col. 6, lines 32-42; col. 12, lines 9-31; Fig. 4, item 132D*) in said second coverage area (*Fig. 4, item 128*); and acquiring PN offset of a secondary pilot signal transmitted from said second cell site secondary transceiver system (*Fig. 4, items 120 and 140*; *col. 6, lines 32-42; col. 12, lines 9-31; Fig. 4, item 122E*) transmitting in said first coverage area (*Fig. 4, item 126*), wherein said first and second cells primary and secondary pilot signals use different PN offsets (Wherein the collocated base stations use different PN codes offsets by a predetermined amount so that remote units in the common coverage area can distinguish the two signals; *col. 5, lines 19-22; col. 6, lines 32-42; col. 12, lines 9-12*).

Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to have Jolma method for accomplishing a handover in a cellular communication system to acquire PN offset of pilot signals transmitted from the base station as taught by Padovani for the purpose of enhancing handoff techniques between base stations of different systems while upholding uninterrupted services throughout the system.

Regarding **claim 18**, and as applied to claim 17, Jolma in view of Padovani disclose the aforementioned processor wherein said controller is system coupled to said receiving system. In addition Jolma discloses said controller system coupled to said receiving system further configured for: performing a hard handoff for a mobile station (a terminal equipment *MS*; *Fig. 4; col. 5, line 33*) from said first cell site primary transceiver system to said second cell site secondary transceiver system (A hard handover carried out by the terminal equipment *MS* from base station *BTS 11* to the base station *BTS 21; col. 5, lines 45-53*) and performing a soft handoff, following said hard handoff, for said mobile station with said second cell site secondary transceiver system and said second cell site primary transceiver system (As the terminal moves deeper into another cell it can carry a soft handover to a base station *BTS 22* located within the cell which is under the controlled of a base station controller *BSC2*, correspondently controlling the base station *BTS 21* located on the previous cell; *col. 5, line 66 thru col. 6, line 2; Fig. 4*).

Regarding **claims 20-22**, and as applied to claim 19, Jolma discloses the aforementioned method. Jolma fails to clearly specify the aforementioned method further comprising further comprising: transmitting, in said first coverage area of said first cell site, a primary pilot signal from said first cell site primary transceiver system; transmitting, in said second coverage area of said second cell site, a secondary pilot signal from a first cell site secondary transceiver system, transmitting, in said second coverage area, a primary pilot signal from said second cell site primary transceiver system; and transmitting, in said first coverage area, a secondary pilot signal from said second cell site secondary transceiver system, wherein said first and second cells primary

and secondary pilot signals use different PN offsets (claim 20); wherein said hard handoff from said first cell site primary transceiver system to said second cell site secondary transceiver system includes: acquiring PN offsets of said first cell site primary pilot signal and said second cell sites secondary pilot signal (claim 21); and wherein said soft handoff with said second cell site secondary transceiver system and said second cell site primary transceiver system includes: acquiring PN offsets of said second cell site secondary pilot signal and said second cell site primary pilot signal (claim 22).

However in the same field of endeavor, Padovani discloses a method for enhancing handoff between transceiver stations of different systems comprising: transmitting, in said first coverage area of said first cell site (*Fig. 4, item 126*), a primary pilot signal from said first cell site primary transceiver system (*col. 6, lines 32-42; col. 12, lines 9-31; Fig. 4, item 132E*); transmitting, in said second coverage area of said second cell site (*Fig. 4, item 128*), a secondary pilot signal from said first cell site secondary transceiver system (*Fig. 4, items 120 and 140; col. 6, lines 32-42; col. 12, lines 9-31; Fig. 4, item 122D*), transmitting, in said second coverage area (*Fig. 4, item 128*), a primary pilot signal from said second cell site primary transceiver system (*col. 6, lines 32-42; col. 12, lines 9-31; Fig. 4, item 132D*); and transmitting, in said first coverage area (*Fig. 4, item 126*), a secondary pilot signal from said second cell site secondary transceiver system (*Fig. 4, items 120 and 140; col. 6, lines 32-42; col. 12, lines 9-31; Fig. 4, item 122E*), wherein said first and second cells primary and secondary pilot signals use different PN offsets (Wherein the collocated base stations use different PN codes offsets by a predetermined amount so that remote units in the common coverage area can

distinguish the two signals; *col. 5, lines 19-22; col. 6, lines 32-42; col. 12, lines 9-12*) (claim 20), wherein said hard handoff from said first cell site primary transceiver system to said second cell site secondary transceiver system includes: acquiring PN offsets of said first cell site primary pilot signal and said second cell sites secondary pilot signal (Both collocated base stations transmitting pilot signals by a predetermined amount and a remote unit acquiring said signals while moving throughout the system and carrying out hard and soft handoffs; *col. 12, lines 9-12; col. 13, lines 6-10 and lines 17-28; Fig. 5*) (claim 21); and wherein said soft handoff with said second cell site secondary transceiver system and said second cell site primary transceiver system includes: acquiring PN offsets of said second cell site secondary pilot signal and said second cell site primary pilot signal (Both collocated base stations transmitting pilot signals by a predetermined amount and a remote unit acquiring said signals while moving throughout the system and carrying out hard and soft handoffs; *col. 12, lines 9-12; col. 13, lines 6-10 and lines 17-28; Fig. 5*) (claim 22).

Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to have Jolma method for accomplishing a handover in a cellular communication system to acquire PN offset of pilot signals transmitted from the base station as taught by Padovani for the purpose of enhancing handoff techniques between base stations of different systems while upholding uninterrupted services throughout the system.

Conclusion

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. Baker (W0 99/27747), Method and Apparatus for Performing Handoff in a CDMA System Through the Use of Repeaters.

b. Gilhousen et al. (U.S. Pat. No. 5,697,055), Method and Apparatus for Handoff Between Different Cellular Communication Systems.

c. Muzynski (U.S. Pat. No. 5,790,528), Semi Handoff in a Cellular Telecommunications Systems.

d. Jetzek et al. (U.S. Pat. No. 6,539,227), Methods and Systems for Controlling Hard and Soft Handoffs in Radio Communication Systems.

17. Any response to this Office Action should be **faxed to** (703) 872-9306 or **mailed to:**

Commissioner of Patents and Trademarks

P.O. Box 1450

Alexandria, VA 22313-1450

Hand-delivered responses should be brought to

Crystal Park II

2021 Crystal Drive

Arlington, VA 22202

Sixth Floor (Receptionist)

18. Any inquiry concerning this communication on earlier communications from the Examiner should be directed to Ismael Quiñones whose telephone number is (703) 305-8997. The Examiner can normally be reached on Monday-Friday from 8:00am to 5:00pm.

19. If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Marsha D. Banks-Harold can be reached on (703) 305-4379, and fax number is (703) 746-9818. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9301.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose number is (703) 305-4700 or call customer service at (703) 306-0377.

Ismael Quiñones

I.Q.

June 3rd, 2004

RAFAEL PEREZ-GUTIERREZ
PATENT EXAMINER
6/14/04